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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/401,632	09/22/1999	RANDALL L. SCHLESINGER	5050/582	4918

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EXAMINER

SERKE, CATHERINE

ART UNIT	PAPER NUMBER
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3763

DATE MAILED: 11/29/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/401,632

Applicant(s)

SCHLESINGER ET AL.

Examiner

Catherine Serke

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 15-37, 44, 46 and 48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 48 is/are allowed.
- 6) ☐ Claim(s) 1-5, 7-9, 15, 17-24, 26-36, 44 and 46 is/are rejected.
- 7) ☐ Claim(s) 6, 16, 25 and 37 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Claim Objections

Claim 37 is objected to because of the following informalities: Claim 37 is dependent from cancelled independent claim 10. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 15, 21-24, 44 and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Crowley et al (US Pat# 4,951,677).

Crowley discloses an acoustic imaging catheter that includes a shaft (elements 38,36,34), an ultrasound transducer (46), lens with an inherent focus (52), and dielectric solid film (72). The dielectric film surrounds a circumference of the transducer and a portion of both ends and once placed inside a catheter shaft the dielectric film would be positioned between the transducer and catheter shaft, see figure 5. The catheter shaft has a tip portion (see figures 7-7D) in which the transducer is positioned and connected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-9, 17-20 and 26-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crowley.

Crowley discloses an acoustic imaging catheter that includes a conductor (40), a shaft (elements 38,36,34) surrounding a portion of the conductor, a non-conductive sheath imbedded within the shaft (34 or 38), an ultrasound transducer (46) and a dielectric film (72). The catheter shaft has a tip portion (see figures 7-7D) in which the transducer is positioned and connected but does not contain the conductor or the shaft.

Crowley fails to teach the non-conductive element within the shaft being in the form of a braid. At the time of the invention it would have been obvious to construct sheaths 34 or 38 in the form of a braid since it is well known in the art to have insulating layers on top of conducting wires in the form of a woven mesh in order to provide the wire with flexibility.

Crowley fails to include the non-conductive braid being made from a monofilament, a monofilament nylon, and a monofilament liquid crystal polymer material.

At the time of the invention, it would have been obvious to construct sheaths 34 or 38 in the form of a monofilament, a monofilament nylon, or a monofilament liquid crystal polymer material in view of the fact that these are well known catheter shaft reinforcement materials and

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it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Crowley fails to include the dielectric film being a tape material, polyester film or mylar.

At the time of the invention, it would have been obvious to construct the dielectric film from a tape material, polyester film or mylar in view of the fact that these are well known dielectric materials and it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Crowley meets the claim limitations as described above but fails to include the dielectric film having a thickness of less than 7 microns.

At the time of the invention, it would have been obvious to make the dielectric film of Crowley having a thickness of less than 7 microns since the Federal Circuit has held, where the only difference between the prior art and the claims was a recitation of relative dimension/size/proportion of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Allowable Subject Matter

Claim 48 is allowed.

Claims 6, 16, 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Response to Arguments

Applicant's arguments with respect to claims 1-9, 15-37, 44, 46 and 48 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Serke whose telephone number is 703-308-4846. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharon Kennedy can be reached on 703-305-0154. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3590 for regular communications and 703-306-4520 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2192.



Catherine Serke
November 19, 2001



GLENN K. DAWSON
PRIMARY EXAMINER